

CLAIMS

1. Austenitic nickel-chromium-molybdenum alloys with additions of silicon, characterized
5 by alloy components (in mass percentages) :

Cr	18 - 22 %
Mo	6 - 10 %
Si	0.6 - 1.7 %
C	0.002 - 0.05 %
10 Fe	1 - 5 %
Mn	0.05 - 0.5 %
Al	0.1 - 0.5 %
Ti	0.1 - 0.5 %
Mg	0.005 - 0.05 %
15 Ca	0.001 - 0.01 %
V	max. 0.5 %
P	max. 0.02 %
S	max. 0.01 %
B	0.001 - 0.01 %
20 Cu	max. 0.5 %
Co	max 1 %
Nb	max. 0.5 %

Hf and/or Y and/or Zr and/or rare earth elements - 0.02 - 0.5%

the remainder being nickel and impurities caused by the melting process, whereby the
25 total amount of additions in Nb + Al + Ti do not exceed 1 %.

2. Alloy as in claim 1, characterized by alloy components (in mass percentages):

Cr	18 - 20 %
Mo	8 - 9.0 %
30 Si	0.7 - 1.1 %
C	0.002 - 0.15 %
Fe	2.5 - 3.5 %
Mn	0.05 - 0.1 %
Al	0.1 - 0.3 %
35 Ti	0.1 - 0.4 %
Mg	0.005 - 0.15 %

Ca 0.001 - 0.005 %

V max. 0.1 %

P max. 0.002 %

S max. 0.001 %

B 0.001 - 0.001 %

Cu max. 0.5 %

Nb max. 0.5 %

Hf and/or Y and/or Zr and/or rare earth elements - 0.03 - 0.06%

the remainder being nickel and impurities caused by the melting process.

3. Alloy as in claim 1, characterized by a molybdenum content between 6.5 and 9.5 %

4. Alloy as in claim 1, characterized by a silicon content between 0.6 and 1.3 %

5. Utilization of the alloy as in one of the claims 1 to 4, for the production of pipes, sheet metal, band material, foils, wires as well as of items made of these semi-products.

6. Utilization of the alloy according to one of the claims 1 to 4 for the production of composite pipes.

7. Utilization of the alloy according to the invention as in one of the claims 1 to 4 as corrosion protection in form of applied welding or plating.